



# SPARK GAP

Vol. 39, Issue 10, October 2022 *MARC - Serving Central Indiana Communities*

## *On OUR MARC:*

*Our meeting this month is Saturday, October 15 at 8 am, at the Johnson County REMC building in Franklin. We are starting to plan the Christmas Pitch-In Brunch, Dirty Santa White Elephant gift exchange, which will be held during our December meeting. Keep the date on your calendars! See you at the next meeting.*

73,

Tim, WC9G

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## **ARES Simulated Emergency Test November 12, 2022**

The ARES S.E.T. Will be held on Saturday November 12, 2022, the starting time for this communication exercise has yet to be announced. What I understand it is to be a Statewide S.E.T. and so far these are the only details that I have to share with you. The S.E.T. will be open to all ARES/RACES, Johnson Aux-comm and radio amateurs in the area. We may be making contacts with traffic to surrounding counties.

State ARES should be making more information available about this since the exercise is about two weeks away. As soon as I have information about the Statewide S.E.T. It will be sent out for all to see. We usually have a good response of amateurs in Johnson County to make this a successful exercise. Please mark this date on your calendar and plan on participating. 73, Bob N9SIU Johnson County ARES EC





## ***NOVEMBER BIRTHDAYS***

***KB9JMU - Jim Adams***

***N9KYC - John Brooks***

***KC9NJM - Bob Jones***

***KD9FBC - Wilson Low***

***K0CMD - David Nienhauser***

***KN9C - Rudy Richardson***

***KM9S - Darrell Sego***

***AF9SE - Steve Ellis***

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## **PUMKIN PATROL**

Pumpkin Patrol will be held this year on Halloween night, Monday, October 31, 6:30 pm until approximately 10 pm. Jackie Frederick, KI6QOG will be Net Control. We plan to utilize the MARC 2m repeater, with the UHF repeater as a backup. Pumpkin Patrol is where we choose a bridge over an Interstate in Johnson County where we will monitor the bridge for anyone who may try to throw something (i.e. pumpkins) onto Interstate traffic below. Any suspicious activity is provided to Net Control who relays that information to the Johnson County Sheriff's Department (JCSD).

If you are willing to volunteer, email Jacki [atTreasurer@midstatehams.org](mailto:atTreasurer@midstatehams.org) and I at [President@midstatehams.org](mailto:President@midstatehams.org) to volunteer. Please provide your name, call sign, vehicle color, make, model, and license plate number of the vehicle to be used (to provide to JCSD so they know why you/your vehicle is parked by an overpass). If you have a preferred location, include that as well.

Thank you for volunteering to keep our community a little safer.

73, Tim WC9G

## MARC PICNIC 2022 WAS BOUNTIFUL



When it comes to the annual MARC picnic members really know how to serve up a feast. Club President Tim-WC9G kept the hot dogs and hamburgers coming as others brought potato salads, baked beans and many delicious side dishes.



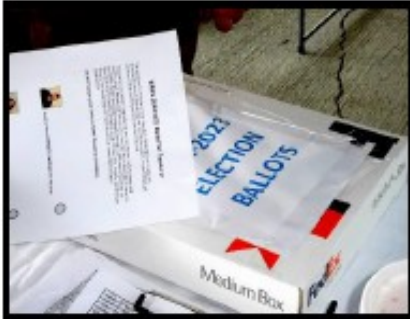
Club picnic 2022 returned to Freedom Park off Morgantown Road. Many folks brought camping chairs to handle the overflow crowd of two dozen members and family.



Three friends of Mike-KC9WLR even set up a slinky HF antenna between trees so they could work HF. No ham function is complete without working the ham bands.

## PICNIC PICS

The primary business of the day was the re-election of club officers. Re-elected was Tim-WC9G, president, WS9H-Rhonda, vice president, Jim-KB9JMU, secretary, Chris-KQ9Y, repeater trustee and Jacki-KI6QOG as treasurer. Jacki was opposed for that position by Jeremy Yount-KD9QCD.



Ballots were emailed to all members along with a few snail mail postings. Ballots were also available at the picnic.

Our crack team of Mike-NV9I and Wilson-KD9FBC were the official Tellers who tabulated the ballots.

Nothing like Food, Fun and Frequencies for a successful picnic.

*Story and photos by Jack-W8ISH*



# W9HR's Mobile Radio Install

For the past several years I've been using a temporary mobile setup in my Chevy Silverado truck. It consisted of a mag-mount dual band antenna, a dual band radio placed on the center console and powered through the cigarette outlet. I used a cup holder to hold the microphone. Obviously, this was not the best setup but it worked and got me through the SET exercises.

I thought, "When I grow up I want to have a professional looking and functioning mobile radio setup like the big guys and gals have." However, I procrastinated because the thought of drilling holes in my Silverado truck terrified me. Well, I've gotten over that and finally took action. Here is my story.

My criteria for installation was as follows:

- No drilling.
- Coax cable to run into the cab through a grommet. No kludgy "slammer" through the door.
- High mount so I don't have to fully take my eyes the road to see the control unit.
- No interference with the existing AM/FM radio controls, heater/AC, etc.
- Nice looking install I can be proud of.

After some extensive research and discussion with several of my knowledgeable HAM buddies, I came up with a feasible design and the following Bill of Materials:

- Yaesu FTM-300 mobile radio.
- Diamond NR770 NMO mount antenna.
- Comet CP-5NMO lip mount antenna bracket.
- Rain cap for NMO mount. (For car wash and low overhead parking garages.)
- Extension speaker.
- 3 foot microphone extension cable.
- ProClip Silverado dash mount adapter.
- Lido radio mount with integrated microphone holder.
- 2 waterproof shrink ring terminals for battery connection.
- Several 3M adhesive cable clips.
- 3M double sided tape for mounting extension speaker.
- Small acrylic kitchen cutting board for mountint the radio.
- 4 adhesive rubber feet for cutting board mount.
- Odds and ends bolts and screws.

I started by mounting the lip antenna mount on the left side of my hood. I then ran the coax across the engine compartment and through a "punch out" grommet located below one of the passenger side door hinges. I taped the end of the coax to a snake and got it into the cab under the dashboard. I ran it under the passenger side floor mat and under the seat. I later zip tied the coax under the hood to a wire bundle that ran across the engine compartment. It was neat and secure.





I then crimped on a couple of ring terminals to the cable leads that came with the radio. I snaked the two cables through the same grommet and into the area below the passenger side dashboard. I had to snake each cable individually because the fuse holders were a bit bulky and the grommet size was limited. I ran the two cables under the floor mat and passenger seat.

The next step was to secure the remote control head and microphone to the dashboard. I used a Pro-Clip that was specifically designed for my vehicle. It snapped onto the trim above the radio LCD. It was bit challenging to get it on but my terror subsided once it snapped in and I didn't break any of the trim. Oh what a relief that was. Anyway, it provided a good mounting platform for the radio.

I mounted the radio remote control to the Lido mount with the single screw that comes with it. The microphone holder was already mounted on the Lido. I then mounted the assembly to the ProClip and it felt secure and well placed. I have to admit I had to do some drilling and bolting prior to mounting both the ProClip and the Lido mount. I could access all of the existing AM/FM radio controls without interference from the mobile radio. Nice. I starting to feel really good at this point.



I was going to use a hook and loop tape to secure the radio to the carpet under the passenger side. There was only one problem with that. There's no carpet under there – just a rubber mat material. Hmm, what to do? So, I mounted the radio on an old kitchen cutting board and used four adhesive feet – ala stereo speaker cabinets -- and stuck them to the bottom corners of the cutting board to keep it from sliding

around. It also keeps the radio up off the floor about ½ inch in case any puddling occurs in the snowy winter months.

I am almost home free at this point. I ran the remote control cable back to the radio and secured it with adhesive clips. I used a microphone extension cable and ran that back to the radio. I used some 3M double sided adhesive tape to secure the extension speaker to the lower console where I could hear it clearly. Finally, I connected the power cable terminals to the truck battery and, voila everything worked.

At a later time I intend to add in-line Powerpole connectors to the power cables so I can power the radio with a separate battery when the engine is not running.

Well, that's about it. I took some risks but won. I satisfied all of my criteria for the install. My blood pressure is good. I am now fully mobile with a descent radio setup. I hope to speak with you on the open road.

If you have questions or comments, I can be reached at [W9HR@outlook.com](mailto:W9HR@outlook.com)

-Doug W9HR



**Nu-Ham Pumpkin Spice Solder**

**Nu-Ham PUMPKIN SPICE**

Premium Lead-free Solder

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3 mm

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Smell The Season!

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## **APO Mystery Solved**

### **W9HR**

I recently installed an **FTM-300DR** mobile radio in my truck. After a visit at the dentist I returned to the truck and found that I forgot to turn the radio off. Whoops. Although it had only been on for about an hour, I thought I should look into the Automatic Power Off setting on my radio. My truck's battery would be grateful for that.

Sure enough, the **APO** was set to the default of "OFF." The manual states this configuration option can be set to "OFF/0.5 hour to 12 hour." I then thought "Well, how exactly does this work?" If it set it for 1 hour does it just shut the radio down even though I might be in the middle of a QSO? Do I need to set it so far out that I will never hit the **APO** limit when I am using the radio?

I asked a knowledgeable fellow **HAM** if he knew how it works. We discussed several options but neither of us knew for sure. I scoured the other manuals for this radio and other similar radios but there was no mention of exactly how the **APO** works. I also performed multiple searches of the Internet groups and always came up empty-handed.

My **HAM** friend said the only way to tell for sure is to experiment with it, so I did. I used my **FT-3DR** for the experiment because I could do it in the comfort of my home.

I set the radio's **APO** to 30 minutes and started a count up kitchen timer next to it. There was plenty of chatter coming across the AmericaLink room I was connected to. When I entered the 25 minute mark, I did a brief transmission identifying my station.

I then watched the timer closely as it passed the 30 minute mark. The radio stayed on. Hmm, that's interesting. I waited until it hit the 55 minute mark at which point it shut down – exactly 30 minutes from my transmission. Ah ha! That's definitive proof that the **APO** resets whenever you transmit.

When you think about it, that's how it should work. If you leave your vehicle with the radio turned on, you don't care about incoming traffic. It would be pointless to reset on that. However if you are calling out, you don't want your radio shutting down in the middle of a QSO. Therefore, it resets the **APO** count down timer upon each **PTT** press.

Well, maybe I just discovered the obvious. At least I know for sure what to expect from this setting. Hopefully this is useful to others.

*-Doug W9HR*

# **My First SOTA Activation - Mount Mitchell, W4C/CM-001**

By James Adams, KB9JMU

Many MARC members know that I'm an avid Parks On The Air (POTA) Activator and Hunter. An Activator travels to a designated POTA park, sets up their radio equipment and calls CQ. Meanwhile, Hunters in their vehicles, at home or in another park try to make contact with the Activators.

Before POTA, I had already become interested in a similar program, Summits On The Air (SOTA). Although I had chased Activators on summits, Indiana is not known for its peaks, so I had not enjoyed the activation side of the program.

My friend Ron Burns, NR3E, had lived in Southern Indiana but relocated to Eastern Tennessee several years ago. We've kept in touch and he has hunted me in POTA parks while I have chased him on SOTA summits in the Blue Ridge Mountains and elsewhere. Ron is the #1 SOTA Activator in Tennessee and #114 in all the world of SOTA, making him a very qualified SOTA Elmer.

I had always intended to visit and finally made the trip south in July.

On Tuesday, July 12, 2022, we made a 2.5 hour trip by car from Ron's home near Kingsport to Mount Mitchell State Park in North Carolina. The peak is the highest point east of the Mississippi River at 6,684 feet. The summit is named for Elisha Mitchell who fell to his death in 1852 and is buried there. It became a State Park in 1915. The parking lot is near the summit and the final 750' to the top is paved with a number of resting benches along the way. The SOTA designation for Mt. Mitchell is W4C/CM-001. It's also a POTA park, K-2747. This would be both a SOTA activation and a POTA activation.

After playing tourists at the lookout, we took a nearby side trail that loops around the side of the peak and eventually returns to the parking area. We set up slightly off the trail for our activation using Ron's Elecraft KX3 radio and a 58-foot wire supported in a tree. The KX3 is true QRP at 10 watts. At an altitude of over 6,000 feet, it gets the job done!

Ron primarily uses Morse Code (CW) for his contacts but we got things started about 16:00 UTC with three Single Side Band (SSB) contacts. Ron took over with this key and quickly made contacts with some of the regular SOTA Chasers, including one of his favorite DX contacts in France. On this day, Ron was active on 60, 40, 30 and 20 meters.

Then we plugged in the mic again and switched back to SSB and made the activation a Parks On The Air "2fer" with both of us logging QSOs with our Hunters. 60 meters did not yield any voice contacts and 40 meters continued slow at first, but as the morning progressed, the band started to open up. We found out later that propagation was generally poor across all the bands...blame it on adverse solar activity. All of my QSOs were on 40 meters.

About 17:30, lunch was calling and we wrapped up our activation, strolled through the gift shop near the parking area and headed down the mountain. Later in the week, on July 14, we activated two more POTA parks in Virginia and Tennessee. But I'll always have fond memories of my first SOTA summit. More will follow.



Jim Adams, KB9JMU, stands next to the sign marking the highest point East of the Mississippi River, Mount Mitchell in North Carolina. (Photo by Ron Burns)



A view from the Mount Mitchell lookout near the Blue Ridge Parkway. On the day of our Summits On The Air (SOTA) activation, low clouds obscured most of the scenic vistas in the morning. (Photo by Jim Adams)



Ron Burns, NR3E, and Jim Adams, KB9JMU, on Mount Mitchell for a combined Summits On The Air and Parks On The Air dual activation. (Photo by Jim Adams)



## MID-STATE AMATEUR RADIO CLUB

The Mid-State Amateur Radio Club meets the **THIRD SATURDAY** of each month at the Johnson County REMC building 750 International Dr. Franklin, IN 46131

See our website, [www.midstatehams.org](http://www.midstatehams.org), for maps on how to get to our meeting.

Everyone is welcome; you do not have to be a *HAM* to attend our meetings or a member of the club.

### W9MID Repeater:

146.835/  
146.235 MHz  
(151.4 Hz PL Tone)

### Club Officers:

President: Tim Aldridge - WC9G  
Vice President: Rhonda Curtis - WS9H  
Secretary: Jim Adams – KB9JMU  
Treasurer: Jacki Frederick - KI6QOG  
Repeater Trustee - Chris Frederick – KQ9Y

### W9MID Repeater:

443.525/  
448.525 MHz  
(151.4 Hz PL Tone) YEASU SYSTEM FUSION (C4FM )

Weekly Net: Sunday evening 7:00 PM ARES/RACES members and ALL RADIO AMATEURS  
146.835/146.235 MHz (151.4 Hz PL Tone)

The Official Newsletter of the Mid-State Amateur Radio Club

P.O. Box 836  
Franklin, Indiana  
46131

Spark Gap Editor: Robert LaGrange N9SIU

*Please send your articles to my email: [n9siu@yahoo.com](mailto:n9siu@yahoo.com) no later than the 2nd week of the month.*



**Thanks to Johnson Co. REMC for the use of their building for meetings and testing.**